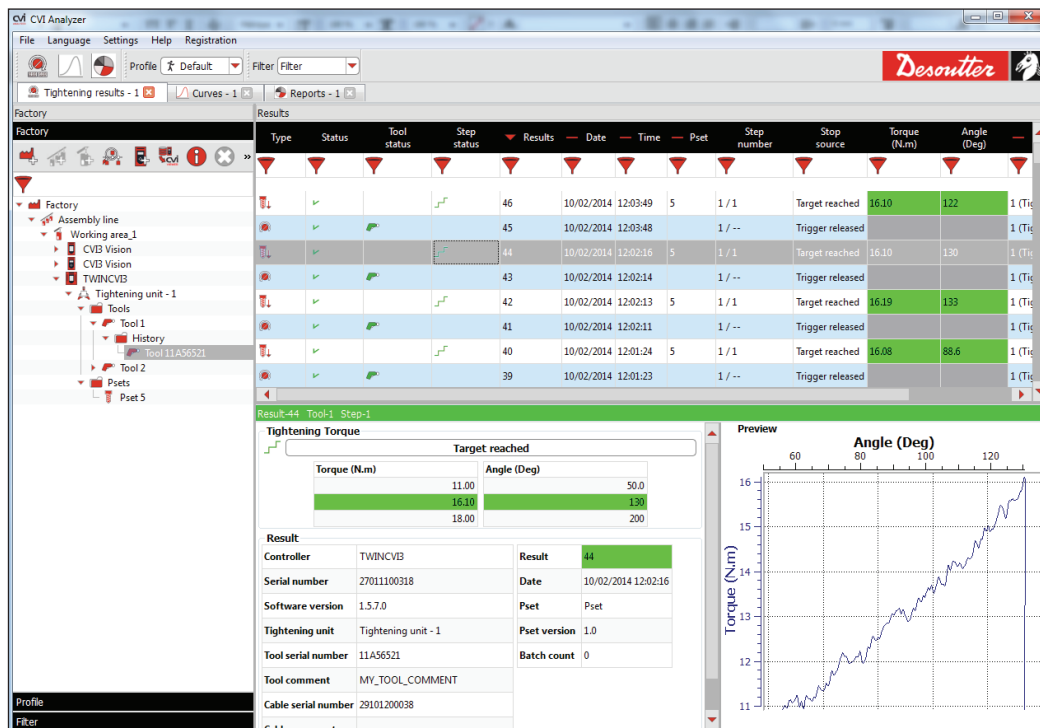




## CVI ANALYZER

V 1.1.3.X

### User manual





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## Original instructions

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## 1 - STATEMENT OF USE

This product is intended to analyze tightening data with results, curves, filters, profiles & import/export.

No other use permitted.

For professional use only.

## 2 - INSTALLATION

### 2.1 - Recommended system requirements

- Windows XP operating system
- 150 Mo available on hard disk
- Monitor resolution 1280 x 1024
- Administrator rights required for installation
- Connection to an Ethernet network

### 2.2 - Installation

- Insert the supplied USB key or CDrom and follow the instructions.



- If the installation does not start automatically, go to the explorer at the root of the USB or CDrom and launch the file "setup.exe".



**cviANALYZER**

- Click "Install software" and then this icon to launch the set up wizard.

## 2.3 - Any help?

### 2.3.1 - Read the user manuals

**User manual**

- Click this icon to display the literature available.



### 2.3.2 - Contact us

**Contact us**

- Click "Contact us" to display the following screen.



- Contact your Desoutter representative for support.
- Click the link to visit our website.

## 2.4 - How to register

- Launch the software (CVI CONFIG for example).
- Go to the main menu and click "Registration".

- Enter the serial number
  - Enter the license number.
- You will find them on the label of the packaging box.



- Click this icon to copy the "Public key" and put it on the Clipboard.

- Go to the website "www.desouttertools.com/licensing"

- Click "Create an account", fill in the form and click "Submit".
- You will receive a confirmation by e-mail.

- Check your mail and follow the instructions.
- Go back to the website "www.desouttertools.com/licensing".
- Enter your login and password and click "Submit".

#### License Management

- Click this icon to display the following screen.

**License management**

Add a new license

Serial number

License number

Submit

- Enter the serial number
- Enter the license number.

You will find them on the label of the packaging box.

- Click "Submit" to validate.

## 2.5 - How to activate the software

- Login to the website "www.desouttertools.com/licensing".

#### License Management

- Click this icon to display the following screen.

Manage existing licenses						
Type	Serial number	License Number	PC name	User	Install date	
6159276276	AAAABBBBCCCCDDDD	XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX		Installs remaining: 1		<div>Add</div> <div>Delete</div>

- Click "Add" to get your registration code.

Desoutter

Industrial Tools

Welcome
License Management
My profile
Contact Form
Disconnection

**Software install**

License card

License type

Part number

Software designation

Installs

License

Serial number

License Number

Date manufacturing

Installs remaining

Features

Software install

Public key \*

PC name \*

Submit

- At the bottom of the screen, paste your public key, enter a name for customizing the PC name (up to 40 characters) and click "Submit".
- You will get then the registration code.
- Launch the software (CVI CONFIG for example).
- In the Menu area, click "Registration".

**Registration**

Part number
 615927CVICO4LUSE

Serial number

Licence number

Public key
 19AD9449F7DC33A4131C70ADD

Copy

Registration code

Registration link
 https://licensing.desouttertools.com

Register

Exit

- Copy / paste the registration code

- Click "Register" to validate.



In this example, the software is to be used for 1 user. If you buy 5 licences, you will have to register the software once and activate the registration code on 5 different PCs.

#### Contact Form

- In case of any problem, login to the website "www.desouttertools.com/licensing" and click this icon to contact Desoutter support.

## 2.6 - How to uninstall the software

- From your PC desktop, go to "Start/Control Panel\ Programs\Programs and Features"
- Double-click the program that you want to remove.
- If you are prompted to confirm the removal of the program, click Yes.
- Once the software removed, you will be asked to unregister your licence.
- Login to the website "www.desouttertools.com/licensing".

#### License Management

- Click this icon to display the following screen.

Manage existing licenses						
Type	Serial number	License Number	PC name	User	Install date	
6159276276	AAAABBBBCCCCDDDD	XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX		Installs remaining: 1		<div>Add</div> <div>Delete</div>

- Click "Delete" to suppress your installation.

Desoutter

Industrial Tools

Welcome
License Management
Part Number
Account Management
My profile
Contact Form
Disconnection

**Software uninstall**

Software uninstall

Uninstall Key \*

Comment

Submit

Send an email

If you have any problem, check the reason and click on submit button. We received an email and tried to help you as soon as possible.

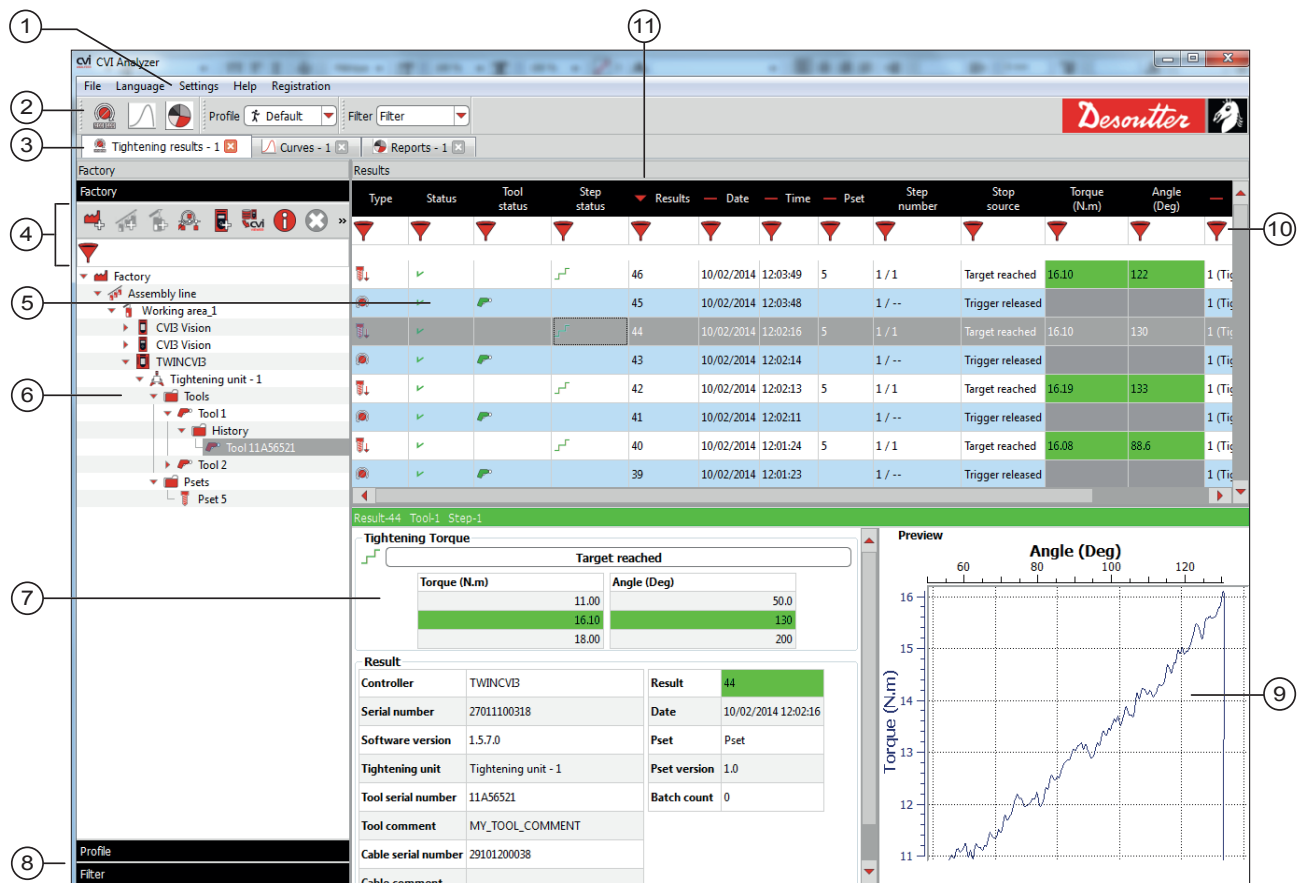
Reason

☐ Crash disk
☐ Forget uninstall
☒ Other reason

Submit

- Copy/paste the uninstall key that you will find in "C:\CVI CONFIG\_uninstallKey.txt" and click "Submit".
- In case of PC crash, tick "Other reason" and add a comment to explain why you want to uninstall your licence.
- Click "Submit" to validate.
- Please wait for a message from Desoutter support confirming that your license has been unregistered. You will then be able to reactivate the license on a new PC.

### 3 - OVERVIEW



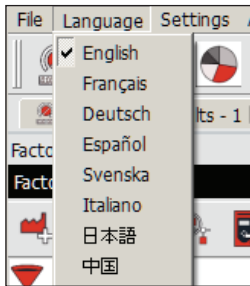
#### Legend

- 1 Menu area
- 2 Tool bar
- 3 Tabs for Results/Curves/Reports
- 4 Factory tool bar
- 5 Results display area
- 6 Tree view area
- 7 Details per result
- 8 Profile and filter areas
- 9 Curve display area
- 10 Filter icon
- 11 Alphabetical sort

## 4 - FIRST SETTINGS

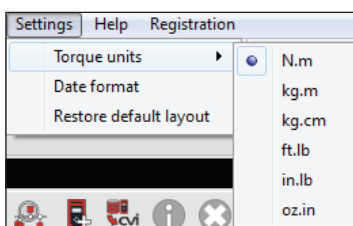
### 4.1 - Language

The language by default is "English".



- Tick your language.

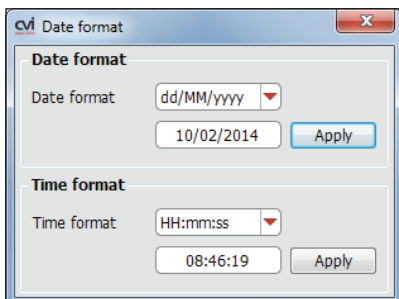
### 4.2 - Torque unit



- Select the format.




### 4.3 - Date and time format

- Select one format in the list below and click "Apply" to update the results.














## 5 - CREATE YOUR ARCHITECTURE

- Create your own architecture by sorting the controllers in a tree view that match their physical position in the factory.

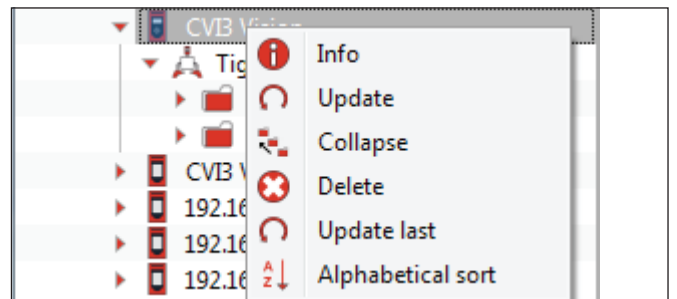
	A factory is a group of assembly lines
	An assembly line is a group of working areas
	A working area is a line segment where a specific assembly action is done. It is composed of controllers.







### 5.1 - Factory tool bar

	to create a factory.	<ul style="list-style-type: none"><li>• Double-click the item to rename it.</li><li>• Create as many items as you want.</li></ul>
	to add an assembly line.	
	to add a working area.	
	to scan the network. All CVI3 controllers present in the network will be listed.	
	to add any type of controller.  <i>A controller is identified by its IP address.</i>	
	to add results from a database.	
	to view information about the item.	
	to delete the selected item.	
	to sort the items in alphabetical order.	
	to filter per factory and/or component of the factory.	

### 5.2 - Managing items

- Right-click any item in the tree view area.



	Info	to view information about the item.
	Update	to update the results and curves of the selected item.
	Collapse	to view the main items only.
	Delete	to delete the selected item.
	Update last	to update the last 10,000 results and curves of the selected item.
	Alphabetical sort	to sort the items in the tree view area.

## 6 - UPLOAD RESULTS AND CURVES

Tightening results and curves can be collected:

- by scanning the network
- by adding a controller via its IP address
- by uploading a controller database via a USB stick
- by loading a CVI ANALYZER backup

When the maximum size of the database is reached, a pop-up will show up asking you to backup the database.

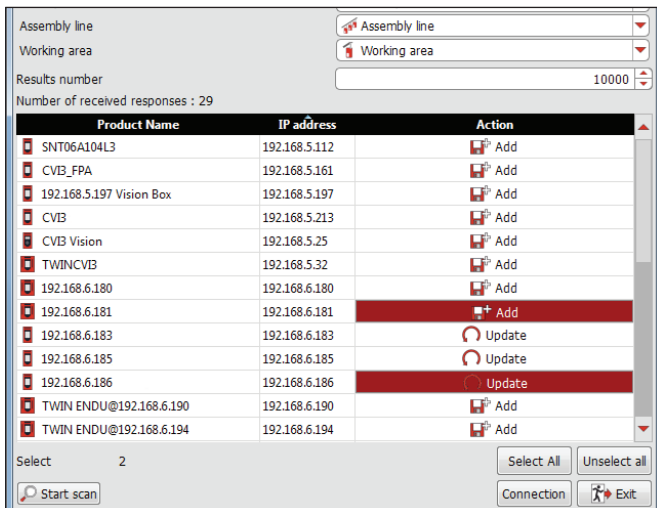


- Click "Purge the database" in the menu area. Results and curves will be automatically saved in a database in the software directory "C:\Program Files (x86)\Desoutter\CVIAnalyzer" but controllers will stay in the same place.

### 6.1 - Scanning the network



- Click this icon to start the scan. All CVI3 controllers present in the network will be listed.



- In the tree view area, select the "Factory/Assembly line/Working area" where to add the controllers.
- Enter the maximum number of results per controller to upload (10,000 by default per tightening unit).



- Click this icon to scan this controller.



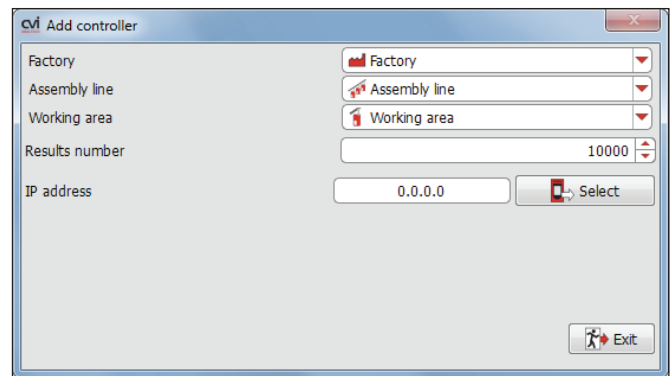
- Click this icon to update the results of this controller in CVI ANALYZER.

- Click "Select all" to have them all in the tree view.
- Click "Connection" to start.
- Click "Start scan" to start a new scan.
- Click "Exit" to quit the screen.

### 6.2 - Adding a controller



- In the factory tool bar, click this icon to add any type of controller.



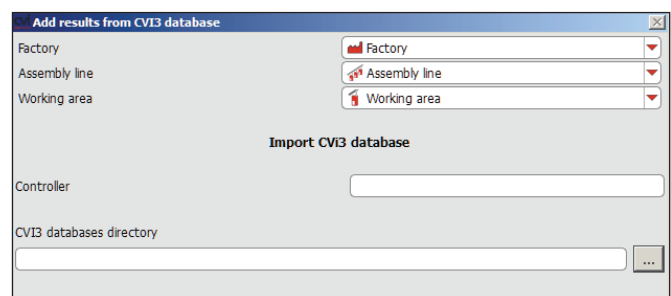
- Select where to add the controller: factory/assembly line/working area.
- Enter the maximum number of results per controller to upload (10,000 by default per tightening unit).
- Enter a valid controller IP address.
- Click "Select" to start.
- Click "Exit" to quit the screen.

### 6.3 - Uploading a controller database

- Plug the USB stick into the PC.



- In the factory tool bar, click this icon to start.



- Select where to add the new controller: factory/assembly line/working area.
- Enter the controller name (40 characters).
- Click this icon to display the directory where you have saved the database.
- Press OK to validate.



## 7 - TIGHTENING RESULTS DISPLAY



- Each time you click this icon, a new tab is created (up to 5 different tabs).

Type	Status	Tool status	Step status	Results	Date	Time	Pset	Step number	Stop source	Torque (N.m)
↓	✓	✓	✓	3152891	16/01/2013	18:16:25	1	1	Target reached	15.34
↓	✓	✓	✓	3152890	16/01/2013	18:16:23	1	1	Target reached	15.34
↓	✓	✓	✓	3152889	16/01/2013	18:16:21	1	1	Target reached	15.50
↓	✓	✓	✓	3152888	16/01/2013	18:16:19	1	1	Target reached	16.08
↓	✓	✓	✓	3152887	16/01/2013	18:16:17	1	1	Target reached	15.61
↓	✓	✓	✓	3152886	16/01/2013	18:16:15	1	1	Target reached	15.88
↓	✓	✓	✓	3152885	16/01/2013	18:16:12	1	1	Target reached	15.63
↓	✓	✓	✓	3152884	16/01/2013	18:16:10	1	1	Target reached	16.00
↓	✓	✓	✓	3152883	16/01/2013	18:16:09	1	1	Target reached	15.82
↓	✓	✓	✓	3152882	16/01/2013	18:16:06	1	1	Target reached	15.22

- Apply profiles and/or filters to sort and customize columns and rows.
- From the list of results, select one result and click its row. The details of the result are displayed. The associated curve is also displayed if available.

CVI ANALYZER is able to display multiple steps when the user has chosen to store the results of each Pset step.

- To set this option, refer to chapter 10 - Step programming/ General in the CVI CONFIG user manual.

Type	Status	Tool status	Step status	Results	Date	Time	Pset	Pset name	Step number	Stop source	Torque (N.m)
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	5	Target reached	30.09
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	1/5	Target reached	30.04
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	3/5	Target reached	30.04
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	5/5	Target reached	30.09
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	5	Target reached	30.31
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	1/5	Target reached	30.00
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	3/5	Target reached	30.04
↓	✓	✓	✓	3435	09/04/2013	16:20:26	5	Pset	5/5	Target reached	30.31

CVI ANALYZER is also able to display results with multiple tools like below with a TWINCUI3 controller.

Factory	Type	Status	Tool status	Step status	Results	Date	Time	Pset	Pset name	Step number	Stop source	Torque (N.m)
↓	↓	✓	✓	✓	3432	09/04/2013	16:16:31	7	Pset	1	Target reached	30.09
↓	↓	✓	✓	✓	3432	09/04/2013	16:16:31	7	Pset	1/1	Target reached	30.09
↓	↓	✓	✓	✓	3432	09/04/2013	16:16:31	7	Pset	1	Target reached	30.05
↓	↓	✓	✓	✓	3432	09/04/2013	16:16:31	7	Pset	1/1	Target reached	30.05
↓	↓	✓	✓	✓	3431	09/04/2013	16:15:18	7	Pset	1	Target reached	30.04
↓	↓	✓	✓	✓	3431	09/04/2013	16:15:18	7	Pset	1/1	Target reached	30.04
↓	↓	✓	✓	✓	3431	09/04/2013	16:15:18	7	Pset	1	Target reached	30.07

## 8 - PROFILE

Profiles are used to customize the columns of the result view. The user can define the columns he is interested in.

- Click "Profile" on the bottom left of the screen. The default profile is displayed:



- Click this icon to create a new profile (up to 10).

Factory	Type	Status	Tool status	Step status	Results
Profile					
Profile name: Profile_1					1634617
Steps					
<input checked="" type="radio"/> All steps					
<input type="radio"/> Only last					
Informations					
<input type="checkbox"/> Factory					
<input type="checkbox"/> Assembly line					
<input type="checkbox"/> Working area					
<input type="checkbox"/> Controller					
<input type="checkbox"/> Controller serial numb					
<input type="checkbox"/> MAC Address					
<input type="checkbox"/> Ip address					
<input checked="" type="checkbox"/> Tightening unit					
<input checked="" type="checkbox"/> Tool					
<input checked="" type="checkbox"/> Pset					
<input checked="" type="checkbox"/> Results					
<input checked="" type="checkbox"/> Results status					
<input checked="" type="checkbox"/> Step status					
Filter					

- Customize the name.
- Tick "All steps" or "Only last".
- Tick the information to display.

The profile is automatically saved.

## 9 - FILTER

The filters are used to sort the results. A filter can contain several search criteria.

### 9.1 - Create your own filters

- Click "Filter" on the bottom left of the screen.

Factory	Type	Status	Tool status	Step status	Results
Filter					
<input checked="" type="checkbox"/> No filter					1634617
					1634617
					1634616
					1634616
					1634615
					1634615
					1634614
					1634614
					1634613
					1634613
					1634612
					1634612
					1634611
					1634611



- Click this icon to create a new filter (up to 10)

- Customize the name.
- Add one or more filters by ticking them one by one.
- Untick the filter you want to suppress: the line will turn grey.
- Click "Apply" to execute the process and display the results.

The filter is automatically saved.



- Click this icon to delete the filter.

- See below an example of filtering:

☒ Filter1

☒ Status
 

☒ Tightening OK
 ☒ Tightening NOK

☒ Stop source

☒ Current
 

☐ OK
 ☐ Low
 ☐ High
 ☐ Abort

## 9.2 - Use standard filters

### 9.2.1 - Factory / Assembly line / Working area / Controller



- From the factory tool bar, click this icon to filter by name.

- Enter the text in the "Contains" field and tick "Apply" to valid your selection.
- Repeat the same for the other filters.

### 9.2.2 - Controller type



- From the factory tool bar, click this icon and go to the "Controller type" tag.

- Tick the type of controller to view.

### 9.2.3 - Filter on type of tightening result



- From the Results display area, click this icon below each column header.

### 9.2.4 - Filter on status

### 9.2.5 - Filter on Pset

- Use the following shortcuts:

n-m	from n to m results
n-	all numbers $\geq$ to n
a;b;c	results a, b, c

- Tick "Apply" to valid the selection.

### 9.2.6 - Filter on date

- Select an already existing configuration (today, yesterday, last week, etc...) or create your own.
- Enter the start/end dates.
- Click "Apply" to valid the selection.

## 9.3 - One-shot filtering

- Go to the results display area.
- Click the filter icons to sort the results as you want.

For example:

Type	Status	Tool status	Step status	Results	Date	Time	Pset
⌵	⌵	⌵	⌵	3152891	16/01/2013	18:16:25	1
⌵	⌵	⌵	⌵	3152891	16/01/2013	18:16:25	1
⌵	⌵	⌵	⌵	3152890	16/01/2013	18:16:23	1
⌵	⌵	⌵	⌵	3152890	16/01/2013	18:16:23	1
⌵	⌵	⌵	⌵	3152889	16/01/2013	18:16:21	1
⌵	⌵	⌵	⌵	3152889	16/01/2013	18:16:21	1
⌵	⌵	⌵	⌵	3152888	16/01/2013	18:16:19	1

## 10 - CURVES DISPLAY

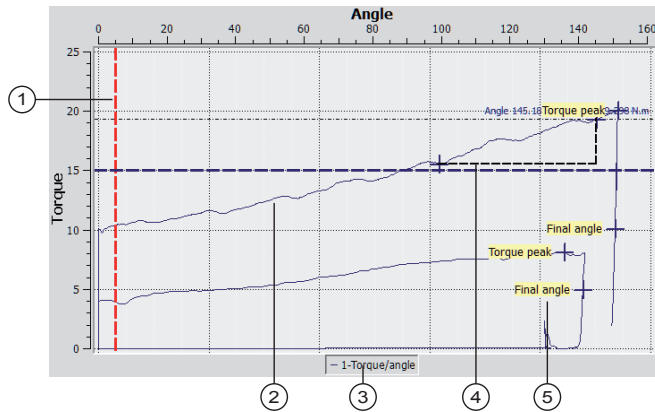


The number of curves to upload is 20 as a maximum per Tightening Unit.



Click this icon to create a tab (up to 1).

- Select the result in the list.



### Legend

- Angle min.
- Torque min.
- Curve type
- Slope
- Markers

	to print the curve.
	to show the Control markers.
	to show the Monitoring markers.
	to zoom out and return to the initial display.
	to activate the zoom. - use the mouse wheel to move on the screen. - zoom in by sliding the mouse - right-click to zoom out
	to draw the slope and display slope values (per tool).
	to reset the curve view.

- Use the mouse to follow the points of the curve.
- Select a type of curve:
  - Torque vs angle
  - Torque vs overall angle
  - Time curves
- Select all steps or step by step.

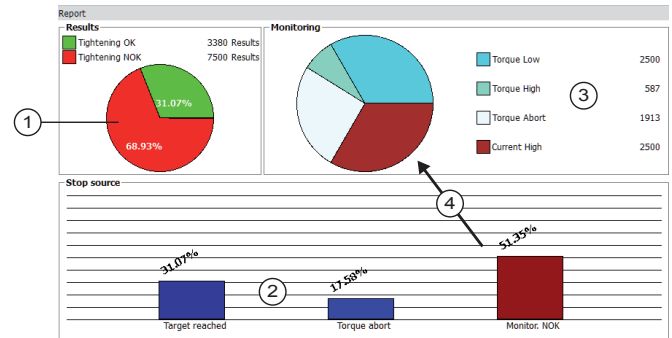
## 11 - REPORTS DISPLAY



Each time you click this icon, a new tab is created (up to 5 different tabs).

- Select any item of the tree.

Example of display:



- Distribution of tightenings OK/NOK
- Tightening stop source condition histogram
- Reasons for monitoring NOK
- Details on Monitoring OK

- Tick the "Filter" tab on the left side of the screen and select one or more filters. The filters will limit the size of the results sample.



It is not possible to change the display.

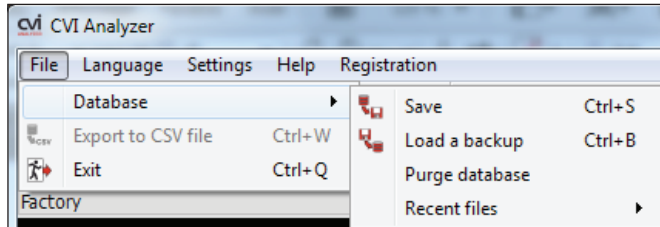
## 12 - BACKUP / EXPORT

### 12.1 - Save a database

Backup is used to save a complete database (controllers + results) in the software directory "C:\Program Files (x86)\Desoutter\CVIAnalyzer".

The name is "datas\_dd\_mm\_yyyy\_hh\_mm\_ss.db" by default.

- Click "File" then "Save" in the menu area or press "Ctrl+S".



### 12.5 - Export to CSV file

This function enables you to export the results to a "CVIAnalyzer\_Results.csv" file in "C:\Program Files (x86)\Desoutter\CVIAnalyzer" by default.

- Select a controller in the tree view area.
- Click "File / Export to CSV file" or press "Ctrl+W".



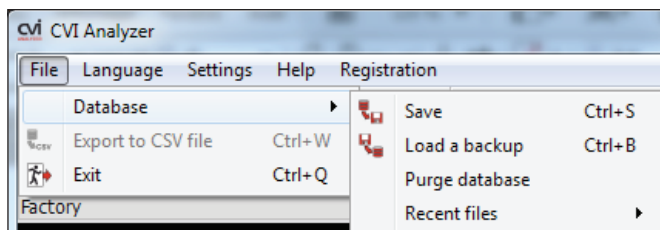
*Only results present in the results view will be exported ; the filters applied are taken into account.*

### 12.2 - Load a backup



*Pre-requisite: you already have saved databases by using CVI ANALYZER.*

- Click "File" then "Load a backup" in the menu area or press "Ctrl+B".



### 12.3 - Purge database

- Click "File" then "Purge database" in the menu area.

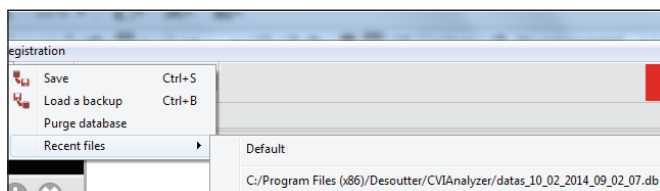


All results and Psets will be deleted.  
Controllers will stay in the same place.

### 12.4 - Recent files

This function enables you to open the last files you have saved.

- Click "File" then "Recent files" in the main menu.



- Click "Default" to load the CVI ANALYZER database.

Below is the path leading to the software databases location.

## 13 - INFORMATION

### 13.1 - Controller

- Select a controller in the tree view area.



- Click this icon to display information about the selected item .

- Change the IP address if required.



- Click this icon to undo your last edit.

### 13.2 - Factory / Assembly line / Working area

- Select an Assembly line for example.



- Click this icon to display information about the selected item .

- Type a comment to customize the assembly line.

## 14 - SOFTWARE VERSION

- Click "About" in the main menu to display the software version.



# More Than Productivity